REMARKS

Claims 1-11, 14-19, 21-29, and 31-39 are pending in the present application. In the above amendments, claim 18 has been amended. Claim 19 has been canceled without prejudice. No new matter has been added by this amendment.

In the Office Action dated August 24, 2005, the Examiner rejected claims 18 and 19 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, rejected claims 16, 21-25, 29, 31, 32 and 37 under 35 U.S.C. §102(e) as being anticipated by Kanterakis et al., rejected claims 1-8, 11, 14, 15, 26, 36, 38 and 39 under 35 U.S.C. §103(a) as being unpatentable over Kanterakis et al. in view of Saints, rejected claims 9, 10, 18, 19 27 and 28 under 35 U.S.C. §103(a) as being unpatentable over Kanterakis et al. in view of Chung, and rejected claims 17, 34 and 35 under 35 U.S.C. §103(a) as being unpatentable over Kanterakis et al. in view of Abeta et al..

Applicants respectfully respond to this Office Action.

In the Office Action dated August 24, 2005, the Examiner rejected claims 18 and 19 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 18, the Examiner states "regarding claim 18, the phrases "a second receiver, a second processor" are confusing because there is no mention of a first receiver and a first processor in claim 16." Claim 18 has been amended to depend on claim 17 which discloses a first receiver and a first processor.

Claim 19 has been canceled.

Claims 16, 21-25, 29, 31, 32 and 37 are rejected under 35 U.S.C. §102(e) as being anticipated by Kanterakis et al.

On page 2, paragraph 3, the Examiner argues that "Kanterakis discloses . . . "a pre-coder (422) configured to pre-code first reference data in accordance with pre-coder parameters (see fig. 4; column);" Applicant respectfully disagrees with the Examiner. Reference numeral 422 refers to a FEC encoder. A forward error correction (FEC) encoder "adds extra bits to the

information bits so that errors may be found and corrected at the receiver." See page 36, *CDMA RF System Engineering*, Samuel C. Yang, Artech House Publishers, 1998. See also CDMA Online, www.cdmaonline.com/interactive04/workshops/terms1/1002.htm, October 2005, "The process of adding structure or redundancy to the data bit stream so that the degradation caused by signal distortion which occurs during the transmission over the wireless channel between the transmitter and receiver antennas can be mitigated at the receiver and allow reliable data recovery."

On the other hand, pre-coding is used to eliminate multi-path interference by applying a transfer function to a signal, wherein the pre-coder transfer function is approximately inversely related to the transfer function of the communication channel. See paragraphs [1008] and [1010] of the specification of the present patent application. Thus, Kanterakis et al. does not anticipate claims 16, 21-25, 29, 31, 32 and 37 because it fails to disclose all their elements.

Claims 1-8, 11, 14, 15, 26, 36, 38 and 39 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kanterakis et al. in view of Saints.

On page 5 of the Office Action, the Examiner admits that Kanterakis et al. does not disclose "precoding dedicated pilot data." The Examiner then states that "Saints teaches a pre-coded pilot signal (column 4, lines 45-64; column 5, lines 14-41)." However, the Examiner has failed to point out where Saints teaches the use of a pre-coder for "pre-coding dedicated pilot data" as disclosed in claims 1-5 and 8. Instead, Saints discloses "the pilot fraction signal is generated by message generator (MSG GEN) 57", and not by a pre-coder. See col. 4, lines 45-46 of Saints. Although the Examiner argues that Saints teaches a pre-coded pilot signal (57, 55), reference numeral 57 refers to message generator which generates the pilot fraction signal, and not pre-coded dedicated pilot data. The pilot fraction signal disclosed in Saints is an indication of the fraction of the total energy of the signal transmitted by the base station 12 that is used to transmit a pilot signal. Furthermore, reference numeral 55 refers to an encoder. See col. 4, lines 31-48 of Saints. Thus, Kanterakis, et al. combined with Saints fails to disclose all the elements of claims 1-8, 11, 14, 15, 26, 36, 38 and 39. Thus, claims 1-8, 11, 14, 15, 26, 36, 38 and 39 are patentable.

Claims 9, 10, 18, 19 27 and 28 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kanterakis et al. in view of Chung.

On page 6 of the Office Action, the Examiner admits that Kanterakis et al. does not expressly disclose a processor communicably coupled to the at least two equalizers. The Examiner then argues that Chung discloses an equalizer 380, 381 and sampler 384. Applicant respectfully disagrees with the Examiner. Therefore, the sampler 384 disclosed in Chung is not a processor which determines "said pre-coder parameters by adjusting characteristics of the at least equalizers in accordance with the received non pre-coded second reference data and the pre-coded first reference data" as disclosed in claim 27. Likewise, the sampler 384 disclosed in Chung is not a processor which determines "said pre-coder parameters by adjusting characteristics of the at least two equalizers in accordance with the non pre-coded second reference data and the pre-coded first reference data by executing a set of instructions to optimize a quality metric of a composite data comprising the equalized non pre-coded second reference data" as disclosed in claim 28. Instead, sampler 384 has two switches (see FIG. 3) to provide "digital signal samples to digital modulator 385." Col. 6, lines 56-57. Therefore, claims 27 and 28 are not obvious in light of Kanterakis et al. combined with Chung for all of the above stated reasons.

Claims 17, 34 and 35 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kanterakis in view of Abeta et al.

On page 7, the Examiner argues that "Kanterakis discloses all the claim limitations as stated above, except for a digital signal processor communicatively coupled to the memory storage unit and capable of executing instruction." Applicant respectfully disagrees with the Examiner. As stated above, Kanterakis et al. does not disclose a pre-coder. Thus, the combination of Kanterakis et al. in view of Abeta et al. does not disclose the "pre-coder" of claim 17, the "apparatus for pre-coding" of claim 34, or the "pre-coded reference data" of claim 35. Therefore, claims 17, 34 and 35 are patentable.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicant submits that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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